SPECIFICATION AMENDMENT

Paragraph from Page 4, lines 6 to 8 is revised and replaced as below:

The disposable blood test kit (20) is made of a transparent material such as silicon, silica, quartz, glass, a polymer [[workable]] produced by a laser, an extruded polymer or ceramics.

Paragraph from Page 7, lines 3 to 8 is revised and replaced as below:

a screen (31) for projecting the diffracted images of the blood cells, which were generated by light [[scattering]] diffracting of blood cells passing through the slit channel; an image capturing unit (35) for capturing the images; a control unit (36) for determining the blood cell deformability and the shearing force on time based data of the captured images and measured pressure through the computer image analysis.

Paragraph from Page 7, lines 11 to 14 is revised and replaced as below:

The diluted blood sample is injected into the tiny blood sample pot (21) of the disposable blood test kit (20). When the blood sample penetrates through the slit channel and passes underneath the light emitting unit (10), the emitted light is [[scattered and]] diffracted through the deformed blood cells to project the images on the screen.

Paragraph from Page 8, lines 22 to 24 is revised and replaced as below:

At this point, the image capturing unit (35) enables capturing the deformed blood cell diffraction image projected on the screen while the blood sample is passed under the light emitting unit through the slit channel (22). For capturing the images, the image capturing unit (35), can be adopted either a CCD camera, digital camera, web camera, or a video camera[[, which are capable to capture thirty-three frames per second]].

Alternatively, the deformed blood cell diffraction image can be directly captured without projecting on the screen by adopting a CCD sensor array as the image-capturing unit (35). The CCD sensor array is able to detect the light intensity of the diffracted images and determine the [[iso-intensity curve of]] blood cell deformation from the detected light signal on the sensor array. Thus, the deformability can be determined from the diffracted light, which is directly projected on the CCD-sensor array without projecting screen.

Paragraph from Page 14, lines 18 to 20 is revised and replaced as below:

The slit channel (22) having a rectangular shape of height H, width W and length L is loaded with the operating pressures and fluid volume on both ends, and the shear rate could be calculated with the pre-calculated data of the volume variation from Equation 5 as follows:

Paragraph from Page 15, lines 6 to 9 is revised and replaced as below:

Because the volume of the blood sample is very small in the buffer solution, the effect of viscosity of the blood in the diluted blood sample may be ignored. Therefore, the viscosity of the diluted blood sample is considered the same as that of the buffer solution. Even [[tough]] though a different blood sample is diluted into the buffer solution, the viscosity of the diluted blood sample is negligibly changed.

Paragraph from Page 15, lines 18 to 22 is revised and replaced as below:

As an implementing example, it is a special character of the present invention that the shear stress can be obtained by the pre-measured data or pre-calculated data of the differential pressure without detecting the instant pressure. It is also possible to plot the graph of the blood cell deformability with respect to the shear force as a function of the time based on the pre-calculated shear stress.